

Report to the Washington Department of Ecology

Westside Stormwater Group Chapter

Version 3.0

November 7, 2003

Reflects WSG comments on draft 2

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Executive Summary

There is a wide range of stormwater management capacity and experience among municipalities in Western Washington, from cities and counties that have operated extensive programs for years, to those that have done little more than issuing construction runoff permits. This wide range of experience and capacity poses a significant challenge to the state, and to the Department of Ecology (Ecology), which is responsible for writing, issuing, and enforcing stormwater permits.

The federal Clean Water Act (CWA) is mindful of the size and capacity of municipalities that it requires to implement stormwater programs. The CWA requires larger jurisdictions to obtain permits first—it names these Phase I communities. Smaller jurisdictions are given more time to obtain their permits—these are identified as Phase II communities. In Washington State, the first Phase I permits were issued in 1995. These permits were to have been reissued in 2000, but that did not occur. Phase II permits have been issued elsewhere in the country, as early as [REDACTED], but none have been issued in Washington.

In the spring of 2003, the Washington State Legislature considered legislation that would have required Ecology to establish a Western Washington permit development advisory group to review a set of issues associated with stormwater permitting and to prepare a report on this process. While the legislation did not pass, Ecology nonetheless contracted with the Washington State Association of Counties to provide facilitation support to such a group, known as the Westside Stormwater Group (WSG).

The WSG met seven times, bi-weekly from August 20 to November 12, 2003 and focused their discussions, primarily, on a list of issues contained in the proposed legislation. The charge to the WSG was:

By December 1, produce a report that summarizes the range of perspectives on a set of issues relating to stormwater permitting and management. Identify alternative course of action and their implications. Delineate areas of agreement and disagreement.

The WSG did not seek to reach consensus on any given issue over the course of the meetings. Instead, WSG members and attendees articulated a variety of administrative, legal, financial, and environmental considerations associated with alternative approaches to permitting. WSG members were committed to protecting the waters of the state by reducing contaminants associated with stormwater runoff, but differed significantly in their thinking on how to do this using state-issued municipal stormwater permits.

The federal CWA lays out the permitting framework by establishing basic permitting expectations for the entire country. In Washington State, however, the State Water Pollution Control Act and the Puget Sound Water Quality Protection Act provide additional permitting considerations. A significant number of the disagreements within the WSG arose over how closely Ecology should hew to the federal act and to what extent Ecology must act beyond the federal mandate to implement these state statutes.

In general, local governments subject to permit conditions prefer the more limited set of actions required by the federal rules. There are two primary reasons for this position. First, local governments acutely feel the political pressure that comes from funding the requirements of federal and state laws. In terms of the stormwater permit, they perceive anything that goes beyond “the minimum six” program components described in the federal rules to be an unfunded mandate. Second, local governments, and particularly potential Phase II permittees, are concerned that going beyond “the minimum six” program components could create conditions for the filing of lawsuits by third parties (i.e., citizen lawsuits). Citizen lawsuits allowed under the CWA allow people other than regulators to seek enforcement of permits when the

permit holder is not complying with the terms of the permit and the regulating agency does not take enforcement action. To the extent that the conditions of the Phase II permit go beyond the minimum federal requirements and are reflected in the federal National Pollutant Discharge Elimination System (NPDES) permit, the terms of state law may create additional liability for the permit holder. [We need as clean and neutral description of third party lawsuits as possible, in lay terms Does this suffice?.]

Others on the WSG are concerned that the minimum actions required under federal rules do not fulfill the environmental values and requirements embedded in state statutes. The Puget Sound is a unique and sensitive marine body, one that the Legislature has taken special effort to protect. The state's bivalve shellfish industry is the largest in the nation and a major employer in several rural Western Washington counties. Economic impacts of stormwater runoff include property damage due to flooding, damaged or destroyed wildlife habitat, and contaminated sediments. Moreover, it is reasonable to expect state and local governments to set objective criteria for judging permit compliance and for holding jurisdictions accountable to these criteria.

The complex regulatory environment and differing perspectives offered by the WSG in the following chapter provide a rich array of opinion on the choices facing Ecology in drafting the permits.

This report considers a set of questions for Ecology to consider as it prepares the next set of municipal stormwater permits:

- *What areas should Phase II stormwater permits cover?*
- *Should Ecology regulate direct discharges to surface waters under municipally owned Separate Storm Sewer System (MS4) permits?*
- *How should stormwater discharges to groundwater be regulated through the MS4 permit?*
- *Should special purpose districts be regulated separately from the municipalities in which they lie?*
- *What constitutes “maximum effort practicable?”*
- *Should “maximum effort practicable” be uniformly determined across Western Washington?*
- *What should be the compliance standard for municipal stormwater permits?*
- *What types of program evaluation/monitoring should Ecology require in the Phase II NPDES stormwater permit to document permit compliance?*
- *Should Ecology add permit requirements to the Phase II municipal NPDES stormwater permits beyond those required by EPA under the federal Phase II Final Rule? How should the municipal stormwater permits be structured?*
- *Should Ecology integrate Phase I and Phase II municipal NPDES stormwater permits, and if so, how?*
- *Should Phase II construction stormwater permittees have the option of complying with a “qualifying” local program instead of obtaining an NPDES stormwater permit?*
- *How should Ecology structure its stormwater fee(s)?*

I. Advisory Group Composition and Process Overview

II. Chapter Organization

This chapter of the report highlights discussions held by the WSG related to the issues described in the House and Senate legislation, as well as other topics identified by members at their first meeting. For purposes of flow and logic, the individual issues have been reorganized into four groupings: 1) Issues of Scope, 2) Issues of Implementation, 3) Issues of Municipal NPDES Stormwater Permit Integration and Coordination, and 4) Issues Specific to the State or Region.

The format of the report is to provide for each subject area a **Background** section with objective and legal information. Following this introduction is a **Discussion** section with a short recitation of the WSG's discourse on the issue. **Alternatives** are presented from the most modest (default) option to more expansive options. Some of these Alternatives were not posed during the discussion but arose in the course of the report preparation. Finally, the **Considerations** present a wide range of opinions and perspectives that were expressed by WSG members on the administrative, legal, cost, and environmental characteristics of the Alternatives.

III. Issues of Scope

A. Areas Being Regulated Under Municipal Stormwater Permits

Background

This discussion pertains to the issue of areas being regulated by National Pollutant Discharge Elimination System (NPDES) permits under Phases I and II of the federal NPDES permit program as they relate to municipal borders. The Clean Water Act (CWA) regulations describe the specific situations under which municipally owned Separate Storm Sewer Systems (MS4s) are required to obtain coverage under an NPDES permit for stormwater discharges. The Phase I permit requirements apply to large and medium-sized MS4s that meet either of the following two requirements:

- The MS4 is located in an incorporated place with a population over 100,000 (as recorded in the 1980 or 1990 census). The permit applies to the entire city.
- The MS4 serves unincorporated areas in a county that had a population of at least 100,000 residents at the time of the 1980 or 1990 census. Only the unincorporated portion of the county must have permit coverage.

The Phase I municipalities in Washington State have been under permit coverage since 1995. There are [seven?] Phase I jurisdictions; five counties and two cities. No new “Phase I” municipalities will be identified.

Phase II requirements apply to smaller MS4s which discharge to surface waters, and are either:

- Located in census defined urbanized areas; or
- Designated by the permitting authority (Ecology) as having the potential to result in exceedances of water quality standards or other significant water quality impacts, including habitat and biological impacts.

Under the NPDES Phase II regulations governing smaller municipalities, only the portion of a MS4 that is located within a census-defined urbanized area (i.e., population density greater than 1,000 individuals per square mile) and discharges to surface waters is regulated. Ecology is required to “develop a process, as well as criteria” which may be used to designate additional MS4s for inclusion in the Phase II permit, based on explicit state-defined criteria, possibly to include discharges to sensitive waters, high growth or growth potential, high population density, or contiguity to urbanized areas¹. Ecology is also required to evaluate municipalities with density of at least 1,000 people per square mile and a population greater than 10,000. Ecology has authority to designate municipalities outside urbanized areas or exempt urbanized municipalities within the urbanized areas. [is this factually accurate?]

Depending on the choices that Ecology makes, at least 100 cities and counties across the state will become subject to the Phase II permit.

The State Water Pollution Control Act Chapter states a policy to maintain the highest possible standards to insure the purity of state waters, consistent with multiple purposes under RCW 90.48. The statute provides, “Consistent with this policy, the state . . . will exercise its powers, as fully and as effectively as possible, to retain and secure high quality for all waters of the state. . . .” The statute has greater scope

¹ These criteria are mentioned as guidance in the NPDES regulations at CFR 123.35(b)(1)(ii). Washington has not yet developed its criteria.

than the federal stormwater regulations. Ecology is subject to the provisions of both the state and the federal statutes.

Discussion

The federal regulations do not require permit coverage for several portions of Washington State, including and perhaps most notably, portions of urban growth area (UGAs) that are slated for further development under the State’s Growth Management Act. According to maps prepared by Ecology, large portions of the UGAs in Western Washington fall outside (but adjacent to) the census-defined areas that are subject to permit coverage. As growth occurs, these areas may be subject to Phase II requirements in the future. Addressing these areas now may reduce future water quality impacts and facilitate broader compliance with water quality standards.

It is also notable that Phase II permits are not required in small incorporated areas located in counties that are not covered under Phase I or II permits, areas of commercial and light-duty development without resident populations, and some areas draining to sensitive water bodies. Therefore, coverage is not federally mandated in:

- Non-urbanized areas within UGAs in Phase II counties;
- Non-urbanized areas within Phase II cities; and
- Some urbanized areas having total resident populations less than 1,000.

What areas should Phase II stormwater permits cover?

<i>Alternative 1</i>	Apply the Phase II permit only to the census-defined urbanized area described in the federal rules.
<i>Alternative 2</i>	Apply Phase II permit to the census-defined urbanized areas, plus: a) Unincorporated Urban Growth Areas and urbanized commercial/industrial areas. b) All areas in Phase II cities.
<i>Alternative 3</i>	Apply Phase II permit to the census-defined urbanized areas, plus: a) Unincorporated Urban Growth Areas, urbanized commercial/industrial areas, and MS4-served areas draining to sensitive water bodies in Phase II counties. b) All areas in Phase II cities.
<i>Alternative 4</i>	Apply the Phase II permit to all areas in Phase II counties and cities, including small incorporated cities that are not yet defined as “census urban areas.”
<i>Alternative 5</i>	Apply the permit to sensitive water bodies that are located within and outside of Phase II counties.
<i>Alternative 6</i>	Apply the permit to all MS4s across Western Washington (except those already covered in Phase I).
<i>Alternative 7</i>	Apply the Phase II permit statewide.

Considerations

Administrative

- Covering entire counties with the permit might be administratively easier for a county, since the county would have one consistent standard throughout its boundaries.
- If the state chooses to include areas in Phase II jurisdictions that drain to sensitive water bodies, it will need to determine which areas will need to be included under which permits.
- Managing larger geographic areas will require greater flexibility for all parties and may necessitate development of a more complex permit. Compliance with regulations may vary.

- Uniform coverage reduces administrative complications.

Legal

- Although Ecology can require coverage of additional MS4s under NPDES Phase II, it can only do so if those MS4s meet Ecology's criteria (as yet undetermined). Ecology lacks stormwater data for some MS4s found in UGAs and may be challenged to make a case to include additional locations. State-based growth management UGA designation may not be proper criteria for federal stormwater Phase II designation.
- Sufficient data exist to show that stormwater runoff contributes to water quality problems and can readily be drawn upon to support permit coverage of additional areas.
- Municipalities have no authority to regulate areas outside their city or county's limits. As a result, there may still be inconsistency across jurisdictions.
- The expanded options (Alternatives 2-7) increase local government exposure to third party lawsuit liability.
- It is the failure to comply with permit requirements that opens up a jurisdiction to third party lawsuits, not the area that is covered or the complexity of the permit.
- Failure to regulate stormwater statewide could create liability for the state under the Endangered Species Act.

Cost and Equity

- Costs associated with extended permit coverage are an unfunded state mandate.
- It is more efficient and cost-effective to implement stormwater control measures proactively during new development than to retrofit existing systems to address ongoing problems. Including smaller municipalities that do not yet meet population thresholds helps those jurisdictions avoid retrofit expenses that will arise once they cross the population threshold.
- Disparity in applying stormwater rules can have the unintended consequences of promoting sprawl and leapfrog development, since development fees/other costs are likely to be higher in jurisdictions subject to stormwater regulation. To avoid these fees, development pressures may intensify in areas not covered under Phase I or II permits, such as UGAs. Over time the UGAs will meet census-defined "urbanized area" criteria and be subject to Phase II requirements. Including UGAs in the Phase II designation may help to moderate development pressures on UGAs and other undeveloped areas.
- Economies of scale can be realized through greater permit area coverage. Increased stormwater utility fees or impact fees can be used to offset downstream impacts from new development
- The narrower the geographic coverage, the more equity and cost concerns will arise between various jurisdictions, affecting those who are required to invest in stormwater controls and those upstream who are not required to do so.
- Economic costs due to stormwater runoff include property damage due to flooding, damaged or destroyed wildlife habitat, closed shellfish growing areas, and contaminated sediments.

Environmental Benefit and Impact

- Preventing water quality degradation is preferable from an environmental standpoint rather than restoring or enhancing water quality by retrofitting developed areas. Thus, it makes sense to proactively address less developed areas, such as UGAs, as they are developed.
- Applying strict stormwater controls to new development within urbanized areas may simply drive development into less urbanized areas, which are currently providing better fish and wildlife habitat than urbanized areas.

- Sensitive water bodies have special ecological importance and deserve attention and protection under regulatory programs. Taking a proactive approach in their protection helps municipalities avoid the costs of restoring (or trying to restore) these natural areas.
- Municipalities that provide consistent coverage throughout their jurisdictions may be more likely to positively impact water quality.

B. Direct Discharges

Background

The federal stormwater rules state that regulated MS4 operators must obtain an NPDES permit for discharges from municipal storm sewers to surface waters (except under certain, defined circumstances). A “municipal separate storm sewer” is defined as “a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) owned or operated by the municipal entity.”³ Streams, lakes, overland flow, and other natural waterways are not generally part of the MS4 system. The federal rules do not require NPDES municipal stormwater permittees to address direct discharges⁴ to surface waters from private properties.

The State Water Pollution Control Act requires counties, municipalities, industries, and commercial operations to obtain a state waste discharge permit to dispose of wastes into the waters of the state. A state permit could, therefore, cover some discharges of wastes directly to surface waters. At this time, the state does not have a permit program regulating direct discharges to surface waters, except for businesses currently subject to the Industrial General Stormwater Permit, Construction General Stormwater Permit, or Individual NPDES permits.

Discussion

Some facilities discharge directly to surface waters e.g., from commercial properties into the Puget Sound. (Industrial discharges are already covered by the state-issued Industrial General Stormwater Permit.) Although direct discharges from commercial properties do not dominate the total runoff volume from areas under municipal stormwater permits in Washington State, in certain areas these discharges may constitute a significant fraction of the flow and stormwater pollutant loading. Stormwater and non-stormwater runoff can mix in streams and creeks that discharge into larger waterbodies. WSG members expressed concerns about direct discharges and their impact on water quality, but were not in agreement that municipalities should be responsible for regulation of these direct discharges.

Should Ecology regulate direct discharges to surface waters under MS4 permits?

<i>Alternative 1</i>	Hold municipalities accountable only for discharges from their MS4 system and not for others' direct discharges to water bodies. Municipalities may help identify/locate direct dischargers but will look to Ecology to regulate direct discharges to water bodies.
<i>Alternative 2</i>	Apply the MS4 permit to all discharges within their jurisdiction, including direct discharges.

³ 40 CFR 122.26(b)(8)

⁴ In this context, “direct discharges” are those stormwater discharges that do not flow through the MS4 itself but come from properties within the municipality’s jurisdiction.

Considerations

Administrative

- Under Alternative 2, municipalities responsible for direct discharges to surface waters become responsible for assuring multiple points of compliance. The resulting regulatory and enforcement matrix would be quite complex.
- Ecology currently does not have adequate staff to identify and take enforcement actions against direct dischargers.

Legal

- Ecology does not believe it has the legal authority under the Clean Water Act to compel municipalities to regulate direct discharges.
- Municipal stormwater NPDES permits should not be used to fill gaps in federal or state regulation; that is beyond the scope of the Clean Water Act.
- Direct-discharged stormwater runoff from commercial and residential properties can only be regulated via municipal permits. Direct-discharged stormwater runoff from industrial and construction activities is regulated under separate CWA permits.
- To limit their own legal liability, municipalities may be compelled to require landowners to apply directly for permit coverage.
- MS4 may not have legal authority to regulate direct discharges. They should not be held accountable for discharges over which they have little or no control.
- Too much uncertainty as to what constitutes a “discharge” if “all discharges” are covered creates the potential for compliance litigation.
- Industrial and construction dischargers are already permitted to discharge and subject to requirements of state-issued General Stormwater Permits. Municipal permittees should not be required to regulate, or to enforce Ecology regulation of, such discharges.

Cost and Equity

- Monitoring to determine which direct dischargers are responsible for stormwater pollution is expensive and for all practical purposes may not even be technically possible.
- Water quality violations may occur more frequently as unregulated sources (possibly including direct stormwater discharges) cause greater pollutant loading. Ultimately, this may cause an impairment of the receiving water of the waterway. If a water quality standard violation occurs and a total maximum daily load (TMDL) is required to come back into compliance with water quality standards, the municipality may be asked to take significant, costly steps to come back into compliance without any mechanism in place to correct pollution generated from direct discharges.
- Ecology would incur greater costs if more TMDLs are required.

Environmental Benefit and Impacts

- Managing the full range of stormwater discharges helps minimize the cumulative water quality impact of stormwater and improves the likelihood of maintaining a receiving water’s compliance with applicable water quality standards.
- Direct discharges can transport significant levels of contamination. Because they drain to the same waterbodies as do the MS4 system, they cannot be practically separated from MS4 regulation and control. Therefore, they should be regulated by those MS4 jurisdictions.

- Resources used to address small areas (individual direct dischargers) may reduce resources available to address other, possibly more significant problems.

C. Coverage of Discharges to Groundwater

Background

The Phase I permit did not require specific actions related to discharges to groundwater. Instead, permittees followed language of a guidance document (*NPDES Municipal Permit – Clarification of Permit Conditions*), which stated, “the requirements for groundwater protection are the same as those already included for stormwater management.”⁵ Discharges to surface water are regulated under the NPDES and state permit authorities; discharges to groundwater are regulated only under state authorities. An issue before the state is whether or not the Phase II permit should regulate stormwater discharges to groundwater.

The federal rules call for the regulation of applicable municipal stormwater discharges to surface waters. EPA has also stated that discharges of pollutants to groundwater via a hydrologic connection provided by groundwater recharge of surface waters are subject to NPDES permitting requirements. Under the federal regulations, direct discharges to groundwater with no hydrologic connection to surface water are not subject to NPDES regulation.

The Underground Injection Control (UIC) program established under the federal Safe Drinking Water Act also provides regulatory coverage for many (but not all) stormwater discharges to groundwater. The UIC program requires that injection wells⁶ be registered and meet “a non-endangerment standard” to protect underground sources of drinking water. (Note: Unlike the federal NPDES requirements, the Safe Drinking Water Act does not contain provisions for enforcement by third party lawsuits.)

The State Water Pollution Control Act defines waters of Washington State to include lakes, rivers, ponds, streams, underground waters, salt waters, and all surface waters and watercourses within the state’s boundaries (emphasis added).

Discussion

WSG members acknowledged the dynamic tension between the NPDES requirements (focus on surface water) and the policies supporting the state Water Pollution Control Act (protect all waters, including groundwater) and appreciated the impact of groundwater-borne pollutants on the state’s waters, including sensitive drinking water aquifers. One concern about including discharges to groundwater in the NPDES permit is that it is difficult to locate and manage these discharges. A second concern is that it raises the specter of enforcement of the permit or a third party lawsuit under the federal Clean Water Act.

How should stormwater discharges to groundwater be regulated through the MS4 permit?

<i>Alternative 1</i>	Issue an NPDES Phase II municipal stormwater permit that applies only to discharges to surface waters.
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⁵ [need citation]

⁶ Injection wells include man-made or improved holes in the ground that are deeper than they are wide at the ground surface, or improved sinkholes or subsurface fluid distribution systems

<i>Alternative 2</i>	Issue separate groundwater (state waste discharge) and surface water (NPDES) stormwater permits.
<i>Alternative 3</i>	Issue a combined NPDES/State Waste Discharge permit for Phase II municipal stormwater and require that municipalities confirm qualitatively that discharges to groundwater meet the non-endangerment standard. Municipal UIC owners would not be required to implement all of the programmatic activities described in the federal Phase II regulations.
<i>Alternative 4</i>	Issue a combined NPDES/State Waste Discharge permit for municipal stormwater and require the same programmatic activities for discharges to groundwater and surface water.

Considerations

Administrative

- Administering a combined surface water-groundwater permit is less burdensome for the state and local jurisdictions than administering two separate permits.
- Requiring the development and maintenance of two separate permits may increase the municipalities' administrative burden.
- The Washington Department of Health, not Ecology, has primary responsibility for implementing and assuring compliance with the Safe Drinking Water Act. Ecology will have to coordinate closely with the Department of Health to implement requirements for discharges to groundwater if included in the Phase II permits.
- Not regulating discharges to groundwater under Phase II permits may create a loophole in the regulatory structure of stormwater management, and a greater (unanticipated and uncontrolled) workload for the UIC program.

Legal

- Issuing an NPDES stormwater permit that covers only discharges to surface water limits local liability to that which is created by federal law. A combined groundwater and surface water federal permit could increase potential of 3rd party lawsuits. Third party enforcement is allowed under the federal Clean Water Act but not by state law.
- Although inclusion of discharges to groundwater in an NPDES permit may subject parties to additional third party litigation, the permit can also shield the permit holder from prosecution if it clarifies that discharges to groundwater are subject only to state requirements.
- Ecology lacks authority to regulate groundwater through an NPDES permit. The municipal stormwater permit should not be called upon to fix legal/statutory problems that arise from differences between UIC, state, and federal water quality protection requirements.
- It is not clear whether Ecology must regulate discharges to groundwater through a permit to satisfy state law or whether state law can be satisfied by regulating these discharges under the state UIC rules or otherwise. Clarification from the Attorney General's office is needed.
- Not all discharges to groundwater are collected/transported via UIC facilities. Under the combined permit option, discharges to groundwater via non-UIC conduits (e.g., infiltration through ponds or basins) may lack permit coverage/oversight.
- Imposing responsibility for discharges to groundwater may increase the potential liability of the municipality for sediment and other upland cleanup.

Cost and Equity

- Coverage of groundwater discharges may be an unfunded mandate and clearly a state, rather than a federal, requirement.
- Most Phase II municipalities currently lack resources to incorporate discharges to groundwater in their stormwater management programs.
- Municipal infiltration facilities already regulated under the UIC program may be subject to duplicative requirements if also made subject to NPDES regulations.
- Most Phase II municipalities do not currently monitor or maintain private infiltration facilities.
- Disparity would exist if only Phase I municipalities were to have groundwater discharges regulated under their permit.

Environmental Benefit and Impact

- The groundwaters and surface waters are hydrologically connected.
- Managing stormwater discharges to groundwater may provide for the development of a more comprehensive stormwater management program and the control of all stormwater sources, not just discharges to surface waters. Alternatives 2 and 4 provides for control of all groundwater discharges (not just those regulated under the UIC program).

D. Special Purpose Districts

Background

As part of its deliberations, the WSG considered the unique challenge posed by special purpose districts. “Special districts” are described in the federal stormwater regulations: “Owned or operated by a State, city, borough, county parish, district, association, or other public body created by or pursuant to State law having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district...”⁷ Special districts that are located within municipalities subject to the stormwater permit requirements and that have responsibilities for maintaining their own storm drain systems must also have permit coverage (unless they qualify for a waiver under 40 CFR 122.32). Ecology has not yet determined whether all special purpose districts requiring MS4 permit coverage should be treated identically under the MS4 permit program.

Various laws address the establishment and operation of special districts, including drainage districts, flood control districts, ports, universities and school districts. Some of these may qualify as special districts in the context of stormwater management; however, their authorizing statutes contain different provisions regarding the authorities of the special districts to control the quality of their stormwater discharges.

Discussion

The WSG discussed that although special purpose districts are covered under the municipal stormwater permitting requirements, they generally lack enforcement authorities (and resources) to implement a stormwater management program. Some WSG members stated that many existing special purpose districts in Washington State are already subject to local stormwater and/or related building design ordinances, pay stormwater utility fees, and/or are partially regulated under an industrial stormwater permit. The WSG also acknowledged that stormwater (and other runoff) from outside the special

⁷ 40 CFR 122.26(b)(8)(i)

purpose district can co-mingle in the special purpose district’s MS4, posing a special challenge for stormwater management.

Should special purpose districts be regulated separately from the municipalities in which they lie?

<i>Alternative 1</i>	Special purpose districts are not explicitly permitted. They are directly regulated via the municipality’s local ordinances and the municipal permit acknowledges this.
<i>Alternative 2</i>	Regulate special purpose districts in conjunction with municipalities. Municipalities and special purpose districts could enter into an interlocal agreement that defines their “co-permittee” relationship.
<i>Alternative 3</i>	Regulate special purpose districts separately from municipalities by allowing special purpose districts to apply for an individual NPDES permit. Special purpose districts that do not meet certain more explicit criteria would be excused from applying for the individual permit.
<i>Alternative 4</i>	Regulate special purpose districts separately from municipalities via their own general permit.

Considerations

Administrative

- Regulating special purpose districts via municipalities would be less resource-intensive for Ecology but possibly more resource-intensive for the municipalities. Ecology lacks sufficient staff resources to issue NPDES permits to each special purpose district or to assure compliance with permit requirements.
- Ecology should not require municipalities and special purpose districts to be co-permitted as a means of addressing its own administrative challenge of overseeing multiple permits.
- Municipalities already have complete ability to carry out their permit obligations on lands contained in special purpose districts. Co-permittee status does not afford them any benefit; however, it may afford the co-permittee benefit from discharges from the municipality’s system.
- Ecology will need to define criteria for which special purpose districts are going to be covered under the MS4 permit. For example, one criterion in the federal rule, seems to distinguish between special purpose districts that cover large geographic areas (hospitals, military bases, and correctional facilities) and those that do not. An alternative criterion might be the degree of stormwater interconnectedness with the surrounding municipality.
- Under Alternative 3, Ecology will need to develop secondary criteria for determining which special purpose districts need to apply for individual permits. Then, the Agency will need to evaluate each special purpose district stormwater permit application against these criteria.
- Establishing and administering a co-permittee system may be highly complex, especially in jurisdictions having multiple special purpose districts (with co-mingled flows). Tracking individual flows back to their sources and allocating liability among all the parties poses a specific significant challenge.

Legal

- It is inappropriate to hold municipalities or special purpose districts accountable through an enforceable permit for each other’s activities and actions.
- The federal regulations do not provide explicit authority to require municipalities to assume “co-permittee” status or to be responsible for the discharges of other municipal permittees. Instead, communities may voluntarily be “co-applicants” and become, in effect, “co-permittees,” each of

which is responsible only for permit conditions relating to the discharge for which it is the operator.

- Special purpose districts are governed by the state and cannot necessarily be compelled by the municipality to take specific action. Ecology should maintain a direct connection to these districts and assert its authority where the district does not conform to Clean Water Act requirements.
- Addressing special purpose districts apart from municipalities may help clarify the boundaries of different parties' liability under specific permits. However, to the extent stormwater flows are physically interconnected, the permitting system likely has little impact on allocation of liability.
- "Contracts" and "agreements" entered into as a mandatory condition of a permit are not technically contracts or agreements, since there is no option not to enter into them. Significant compliance problems for the willing party might arise if the other party refuses to enter into the agreement.
- Ecology cannot and should not require entities to enter into interlocal agreements. Parties will choose to enter into them voluntarily if they provide benefits, meet specific needs, and are consistent with local authority.

Cost and Equity

- Some special purpose districts already contribute significant funds to existing stormwater utilities to help cover the costs of stormwater management programs. This may not be true for some categories of special purpose district (e.g., school districts).
- Coordinated management may offer economies of scale.
- There is an equity concern if special purpose districts in Phase II communities are not treated the same as those located in Phase I communities?

Environmental Benefit and Impact

- Requiring direct permit coverage for special purpose districts that are already covered under other NPDES permits such as the Industrial General Permit may not provide additional environmental benefits.
- Shared management of the water resource and discharge of pollutants may produce better environmental results.

IV. Issues of Implementation

A. Level of Effort Required of Phase II Municipalities to Satisfy Permit Requirements

Background

The Clean Water Act requires that municipal stormwater discharges obtain permit coverage for discharges to surface waters. The Act states that permits for discharges from municipal storm sewers:

- Shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers; and
- Shall require controls to reduce the discharge of pollutants to the *maximum extent practicable*, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.⁸ (emphasis added)

Under the Phase II federal rules, MS4 permits will require regulated MS4s to “develop, implement and enforce a storm water management program designed to:

- Reduce the discharge of pollutants to the *maximum extent practicable* (MEP);
- Protect water quality; and
- Satisfy the appropriate water quality requirements of the Clean Water Act.⁹(emphasis added)

The Phase II regulations state further that such stormwater management programs must include “six minimum control measures”¹⁰ to meet the conditions of the NPDES permit. The regulations also direct MS4 operators to comply with “any more stringent effluent limitations in [the] permit, including permit requirements that modify, or are in addition to, the minimum control measures based on an approved total maximum daily load (TMDL) or equivalent analysis. The permitting authorities may include such more stringent limitations based on a TMDL or equivalent analysis that determines such limitations are needed to protect water quality”¹¹ Phase II MS4 operators are also required to evaluate program compliance, the appropriateness of identified Best Management Practices, and progress toward identified measurable goals. The WSG referred to this full set of requirements as the “six plus two” minimum requirements.¹²

For Phase I, Ecology required that the regulated MS4s describe their stormwater management program in their applications. The Phase II rule contemplates that each permittee will describe its individualized pollution control program in a Notice of Intent (NOI) to seek coverage under a general Phase II permit. However, the 9th Circuit invalidated and remanded this portion of the Phase II rule because the NOIs are not subject to any mandatory review by the permitting authority to determine whether the MEP standard is met. What level of review by Ecology is adequate remains an open question. The 9th Circuit stated that its holding “should not preclude regulated parties from designing aspects of their own stormwater

⁸ Section 402(p)

⁹ Section 402(p)(3)(A)

¹⁰ The six minimum control measures include: (1) public education and outreach; (2) public involvement/participation; (3) illicit discharge detection and elimination; (4) construction site stormwater runoff control; (5) post construction stormwater management in new and redevelopment; and (6) pollution prevention/good housekeeping for municipal operations.

¹¹ 40 CFR 122.34(e)(1)

¹² There were differences in perspective whether it was more appropriate to count six measures or eight.

management programs, as contemplated under the Phase II Rule.”¹³ It is unclear whether the decision will be appealed or what path EPA will take for Phase II permits.

[Need to insert a discussion of state requirements for AKART]

Discussion

The discussion of these issues included what MEP means, what standard of compliance should be set in the permit, and what types of program evaluation and monitoring should be required. The WSG’s discussion of these different subjects often ran together, because they all involve analytic assessment and because different notions of MEP are at the heart of the compliance and monitoring issues. The concept of MEP directly informs decisions about what actions constitute the six plus two minimum measures. WSG members expressed starkly different notions of what constitutes MEP and how MEP fits within the permitting context. Participants also offered a range of different interpretations as to how MEP has been dealt with in the regulations. For example, some members perceive that EPA has not defined MEP while others cite EPA’s definition of MEP.

The differing views are difficult to summarize neatly; they are reflected in the number of alternatives presented below.

MEP is likely to change over time as new technologies become available and cost-effective. Related issues discussed by the WSG include: is MEP set uniformly across Western Washington or can it be defined according to the size of a jurisdiction and/or the maturity of its stormwater management program?

What constitutes MEP? *(Note: these are not mutually exclusive alternatives)*

<i>Alternative 1</i>	MEP should be set as a BMP standard. Appropriate BMPs may be considered those for which the costs and benefits are in direct relationship, that is, where the probable benefits are greater than their probable costs.
<i>Alternative 2</i>	MEP should be defined using the National Association of Flood and Stormwater Management Agencies (NAFSMA) proposal, King County’s proposal, or some other variation, to provide better benchmarks with other states.
<i>Alternative 3</i>	MEP should be equivalent to AKART (“all known available and reasonable technologies”).
<i>Alternative 4</i>	MEP should be the use of the minimum requirements in the Western Washington stormwater manual, including those relating to flow control and treatment standards.
<i>Alternative 5</i>	MEP should be defined as numeric water quality standards.
<i>Alternative 6</i>	MEP should include a narrative requirement and evaluation of the local program so that it is designed to achieve water quality standards.

Considerations

Administrative

- Because MEP is not defined in the federal Phase I or II rules, Ecology and others will need to focus early attention on developing a clear understanding of the concept. Depending on which of the above alternatives is selected, this effort could require a determination of what constitutes “all known available and reasonable technologies” or “technically sound,” “financially responsible,” and “environmentally beneficial.”

¹³ *Texas Cities Coalition on Stormwater et al. v. EPA*, No. 00-70822, 13767, 13802 (9th Cir. Sep. 15, 2003)

- Determination of what actions within the framework of six plus two minimum measures will be required to achieve MEP will require considerable agency time and energy. The crucial consideration is not the number of requirements; but, rather, the level of effort within each component needed to be in compliance with those requirements.
- NAFSMA has developed a detailed definition of MEP that could be used: “the technically sound and financially responsible, non-numeric criteria applicable to all municipal stormwater discharges through the implementation of ‘best management practices.’”¹⁴

Legal

- Federal Phase II regulations state “Implementation of best management practices consistent with the provisions of the [required] storm water management program...constitutes compliance with the standard of reducing pollutants to the ‘maximum extent practicable.’”¹⁵ Elsewhere, the regulations state that MEP generally means implementation of BMPs. EPA guidance promulgated in November 2002 also states that MEP is a BMP standard. No firm benchmark was articulated in federal law and guidance.
- The federal courts recently affirmed that federal law does not require municipal stormwater permits to comply with water quality standards. However, this does not preclude permitting authorities from setting water quality-based standards as the MEP standard. Other federal requirements (e.g., governing establishment of TMDLs) require that receiving waters attain all applicable water quality standards. Therefore, even if municipal stormwater permit regulations do not call for compliance with water quality standards, stormwater discharges may ultimately be expected to contribute to meeting applicable water quality standards in the waterbody through implementation of a TMDL or other water quality management plan. State law prohibits the discharge of pollutants into state waters.
- If compliance with water quality standards is established as the MEP standard and Ecology is unable to enforce this standard, the agency may find itself in danger of losing program delegation for failing to assure implementation of NPDES requirements.
- Tying MEP to AKART may strengthen the connection between the federal and state requirements.
- Establishing MEP as equivalent to AKART may run counter to the Growth Management Act and other state mandates.
- Equating MEP to AKART or to water quality standards may increase 3rd party lawsuit liability.
- State law references maintaining the highest purity of all waters of the state. This is often interpreted to call for compliance with applicable water quality standards through permits (and other mechanisms).
- State law authorizes BMPs as an appropriate mechanism for meeting water quality standards when numeric limits are not feasible.
- The state’s vesting laws protect private development rights. Development projects are vested to the construction standards in place at the time of the application. Therefore, if the state requires the local jurisdiction to raise the standard, the jurisdiction cannot retroactively change the private development standard. The MS4 would need to make up any gaps in the standard. Because it takes years before the development BMPs to take effect and be widely implemented, it may be hard to determine whether a certain set of BMPs would constitute MEP at any given time.

¹⁴ National Association of Flood and Stormwater Management Agencies, “Position on Municipal Stormwater Management Program,” Approved January 18, 2002

¹⁵ 40 CFR 122.34(a)

- Compliance with water quality standards (which is a water-quality-based effluent limitation issue under NPDES) should not be confused with MEP (which under the NPDES program is first a technology-based concept).
- Under the Clean Water Act, MEP is such a dominant concept for municipal stormwater that practicability must influence the regulator's choice to include any water-quality-based requirements that the law might allow. Requirements that are not practicable should not be included.

Cost and Equity

- Retrofitting existing facilities to meet new design standards or water quality standards can be very expensive and may, at times, run contrary to other protections (e.g., vesting) granted elsewhere under state law. It may not be possible in urbanized areas.
- Other stormwater permits (e.g., industrial) require permittees to comply with applicable water quality standards, but these are point-source discharges where cause-effect relationships can be readily determined.
- MEP must be defined carefully to refrain from holding municipalities liable as a matter of permit compliance for any non-stormwater discharges (e.g., septic leakages) that travel through the MS4 systems.
- Municipalities are concerned about being asked to implement specific measures that cause them to divert resources from other important activities.

Environmental Benefit and Impact

- Failure to adequately manage stormwater runoff could lead to costly retrofit and restoration projects such as sediment remediation, fish habitat restoration, and flood damage restoration. It could also cause the closure of local businesses such as shellfish companies.
- Water crosses jurisdictional boundaries. Obligations not met upstream merely become downstream liabilities.
- Placing strong emphasis on new development, redevelopment, and retrofitting existing facilities may bring about more comprehensive and faster water quality improvements.
- Working proactively to meet water quality standards will provide maximal water quality benefit and help avoid stormwater-induced water quality violations.
- Phase II stormwater regulations require MS4s to protect water quality. This requirement should be paramount in considering what constitutes MEP.
- Monies should be targeted to provide the greatest benefit. Overregulating may divert resources from solving worse problems to issues that present minimal risk.

Should MEP be uniformly determined across Western Washington?

<i>Alternative 1</i>	Ecology should define a single MEP standard for all MS4 permittees across Western Washington. Options include defining it via guidance or regulatory code or through reference to the Stormwater Management Manual for Western Washington.
<i>Alternative 2</i>	MEP should vary by jurisdiction, thereby allowing each permittee's program to be evaluated on the basis of its situation and resources.

Members discussed whether Ecology can or should determine uniformly, for all or some municipal permittees, what substantive permit requirements constitute MEP. The discussion of MEP also included some mention of whether controls on new and existing development should be included as permit requirements for controlling stormwater discharges to the MS4.

Considerations

Administrative

- Determining what constitutes MEP for individual Western Washington jurisdictions can require considerable agency resources and will be challenging to accomplish. It may be more timely and efficient for Ecology to establish a single MEP standard across Western Washington than attempting to establish site-specific criteria.
- The state could provide a very detailed MEP that allows for review of individual programs.
- MS4 operators are often in the best position to determine what actions/activities will most successfully manage stormwater pollution in their jurisdictions.
- Establishing MEP at the jurisdictional level provides a clear avenue for local input into the development of a municipal stormwater management program.
- Greater public involvement introduces the need for additional staff resources to manage and respond to public suggestions and queries.
- A public involvement component may reduce the burden of review on Ecology by providing information independent of the permittee on what is practicable in a given jurisdiction.
- Conforming to a uniform MEP permit standard might require a particular jurisdiction to re-codify or redesign its development or enforcement controls.
- A prescriptive approach to MEP provides clearer guidance and certainty of success.
- Some municipal stormwater managers prefer a permit that gives the flexibility to establish unique stormwater management programs tailored to local needs and are willing to contribute to Ecology's increased costs in order to accomplish this goal.

Legal

- The courts have not defined MEP. Over time, the courts may clarify what constitutes MEP. If the state defines MEP in statute or rule, later judicial interpretation of the requirement could cause a problem in terms of the state's delegated authority under the Act.
- The concept of "practicability" is inherently dependent upon, and must incorporate, the circumstances and resources of the permittee.
- It is not clear what level of review is required by the permitting authority as to what constitutes MEP. The 9th Circuit invalidated and remanded the portion of the Phase II rule that enabled the permitting authority to rely upon a Notice of Intent prepared by the permittee that describes the permittee's individualized stormwater program. The 9th Circuit has also indicated that it is nonetheless appropriate for the permittees to design aspects of their own stormwater management programs, as contemplated under the Phase II Rule.

Cost and Equity

- Local officials may be more willing to support implementation of measures/program activities that are explicitly prescribed by the state agency.
- Allowing the MEP determination to factor in a jurisdiction's present size, ability to perform, ability to pay, and the natural resources affected may help ensure that MS4 operators will be able to successfully and quickly implement a municipal stormwater management program.

- If MEP varies by jurisdiction, there may be inconsistency in programs across the state, resulting in competitive advantages for certain businesses.
- Municipalities that have already expended considerable resources to develop stormwater management programs do not want to be penalized for working proactively to manage stormwater pollution. Such a penalty would arise if these jurisdictions were held to a higher standard or shorter compliance schedule than those jurisdictions that have done little or no preparation.
- Jurisdictions have different financial abilities to implement stormwater program activities. A jurisdiction's current ability to implement stormwater program activities does not determine that jurisdiction's ultimate programmatic capabilities. MEP, therefore, can be set to encourage maximum stormwater protection, whether on a site-specific or regional basis.
- Jurisdictions also have different scales of obligation. While more residents/businesses may provide additional funding, they also create the need for more stormwater management.
- Economies of scale can help to reduce costs, but merely being a small jurisdiction does not prevent the pooling of resources with other to generate economies of scale.

Environmental Benefit and Impact

- Waters of the state belong to all citizens, not just residents of a particular jurisdiction. The definition of MEP and selection of appropriate stormwater management program actions should consider this and not be unduly influenced by a jurisdiction's particular economic or political climate.
- The ability to implement a comprehensive program does not necessarily relate to environmental problems or benefit. Some of the biggest problems or sensitive waterbodies may be within a jurisdiction with no existing program or few resources.

B. Compliance Requirements

Background

A basic element of all permits is the standard of performance employed to determine whether a permittee is operating in compliance with the permit. In a traditional wastewater discharge (NPDES) permit, a permit must include technology-based effluent limitations for the discharge; if a discharge is found to cause, have reasonable potential to cause, or contribute to an in-stream excursion above water quality standards, the permit is also to include certain water quality-based (chemical or biological parameters) effluent limits. Federal regulations provide, further, that BMPs may be imposed in NPDES permits when “[n]umeric effluent limitations are infeasible.”¹⁶

In its 1996 policy guidance, EPA determined that numerical water quality-based effluent limits would not be required in the Phase I stormwater permits that it prepared.¹⁷¹⁸ EPA also noted that a narrative Best-Management Practice approach would be a preferred approach to measure permit compliance.¹⁹

In *Defenders of Wildlife v. Browner*, the 9th Circuit Court in 1999 determined that in a municipal stormwater NPDES permit, EPA must require controls to reduce the discharge of pollutants to the

¹⁶ 40 CFR 122.44(k)(2)

¹⁷ Interim Permitting Approach for Water Quality-Based Effluent Limitations in Stormwater Permits, (EPA-833-D-96-00), 9/01/96.

¹⁸ EPA encouraged States and Tribes to adopt similar policies for permits they were preparing.

¹⁹ “Memorandum from Robert Wayland, Director of OWOW and James Hanlon, Director of OWM to Regional Water Division Directors: Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations”, 11/22/02.

Maximum Extent Practicable but does not need to require that discharges meet water quality standards. The court went on to observe that the regulator could choose to include “such other provisions” as it determined were appropriate, including, possibly, water quality-based conditions. ²⁰

Discussion

The WSG discussed two basic approaches to compliance requirements: (1) the applicant should be required to meet numeric water-quality-based standards (either chemical parameters or biological indicators); and (2) the applicant should be required to implement narrative Best Management Practices identified for each permit element.

The discussion of these choices was truncated, because Ecology was clear in its presentation that at this point it considers narrative BMPs a clearly superior means of assessing whether a permittee is compliant with permit conditions. Most of the discussion agreed with this perspective, although several scenarios were noted, posing an alternate view.

What should be the compliance standard for municipal stormwater permits?

<i>Alternative 1</i>	Meet Best Management Practices identified for each permit requirement.
<i>Alternative 2</i>	Meet narrative water quality standards, as well as Best Management Practices”—both structural and non-structural—and other “strategies.
<i>Alternative 3</i>	For sensitive shellfish areas, only: meet state-defined numeric water quality criteria in receiving waters or meet effluent standards.
<i>Alternative 4</i>	Meet water quality standards.

Considerations

Administrative

- Actions needed to achieve a specific numeric water quality outcome are uncertain at best and in many instances may be unknowable.
- Permittees do not control all of the variables (pollutants and flow) affecting the quality of the end-of-pipe discharge. Numerous point and nonpoint sources may be present throughout areas tributary to MS4s. These should not be counted toward an MS4 operator’s compliance with the requirements of a stormwater permit.
- Due to the number and variable quality of stormwater runoff and the need to monitor water quality at numerous discharge points, it would be much more challenging for local jurisdictions (and Ecology) to administer a permit based on compliance with numeric water quality standards than a permit based on BMPs.
- BMPs laid out in the 2001 Stormwater Management Manual for Western Washington may be a useful starting point for defining applicable compliance approaches under Alternative 1.

Legal

- Both EPA guidance and federal court decisions are explicit that narrative BMPs meet the intent of the Clean Water Act.
- Compliance with state water quality standards is not required for municipal stormwater permits.

²⁰ [need citation]

- The Clean Water Act authorized permit provisions other than BMPs where the state determines they are appropriate for the control of pollutants. One interpretation of this provision is that Ecology could be required to conduct a Reasonable Potential Analysis to determine the likelihood of exceedance of water quality standards before such additional provisions are imposed as a permit requirement.
- Imposing water quality standards as a permit compliance measure could increase the potential for a municipality to be the guarantor of outcomes it cannot control.
- A requirement to comply with narrative water quality standards could be unreasonably vague and may not give the permittee adequate notice of what actions are needed to ensure compliance with the requirement.
- Narrative water quality standards are subject to interpretation (and may open up permittees to third party lawsuits based on an interpretation of those water quality standards).

Cost and Equity

- In many cases, there are no treatment technologies available to treat stormwater that cannot otherwise comply with water quality standards.
- To base permit compliance upon specific water quality outcomes over a permit term would be to set policy based on bad science and ignore the complexity of municipal stormwater management, the number of variables, and the long timeline over which improvements in water quality *may* become objectively measurable or directly attributable to a municipal stormwater management program.
- Compliance with water quality standards may mean imposing retrofits on existing facilities. This process can be very expensive and may, at times, run contrary to other protections (e.g., vesting of private development projects) granted elsewhere under state law.
- Even with significant investments, it is unlikely that a permittee could demonstrate compliance with WQ standards either at the point of discharge or in the receiving waters.
- Industrial stormwater individual permit holders are compelled to meet numeric water quality standards. (Industrial stormwater general permit holders are required to meet narrative water quality standards.) However, these sites typically control all inputs to the system; MS4s do not.

Environmental Benefit and Impact

- Operators of shellfish beds must meet a fecal coliform standard in order to be able to harvest the shellfish. Commercial and recreational shellfish beds should receive special consideration when determining compliance. Water quality needs for salmon or other natural resources dependent on clean water should also be considered when setting the compliance standard.
- Failure to meet water quality standards in receiving waters can lead to costly and time-consuming restorative processes, degraded fish and wildlife habitat, and costly sediments remediation projects
- Allowing flexibility in meeting permit conditions may allow a permittee to pursue a potentially more successful course of action for stormwater management, thereby resulting in cleaner waters.

C. Program Evaluation/Monitoring Requirements

Background

The Phase I federal rules call for regulated MS4s to submit annual reports that include the following: the status of the municipality's implementation of its stormwater management program; some proposed changes to the stormwater management program; necessary revisions to the assessment of controls;

summary of data, including monitoring data accumulated over the past year; a description of the number and nature of enforcement actions, inspections, and public education programs implemented; and identification of water quality improvements or degradation. The annual report in the fourth year of implementation must include “a detailed evaluation of the effectiveness of the stormwater management program, the information requested (in the other annual reports), and a proposed stormwater management program for the term of the next permit.”²¹

The Phase II federal rules require MS4 operators to evaluate program compliance, the appropriateness of identified BMPs, and progress toward achieving identified measurable goals as one of the six-plus-two minimum measures. Regulated entities are required to submit annual reports to Ecology during their first permit terms and, in subsequent permit terms, to submit reports in Years Two and Four of each cycle. These reports must include the results of the evaluations described above, as well results of information collected and analyzed during the reporting period, a summary of stormwater activities planned for the next reporting period, and any changes in identified BMPs.

Discussion

Monitoring is a key issue for both Phase I and Phase II permits. The WSG focused primarily on the evaluation, and not the reporting, requirements laid out in the regulations, giving special consideration to what kinds of monitoring should be required. Members considered different types of evaluation that may be useful: BMP effectiveness; individual MS4 stormwater program element effectiveness; and the effectiveness of Ecology’s program, either at a statewide or regional (Western Washington) scale. The WSG also considered which kinds of information provided the greatest value for managing local and statewide stormwater efforts and for judging program compliance.

The WSG reviewed types of monitoring that were possible, including action-oriented monitoring (that is, implementation of BMPs and other program elements), environmental monitoring (that is, effect on receiving waters), and chemical/biological monitoring.

Members observed that the evaluation does not need to be tied to a compliance determination. Some members noted that the evaluation can, but does not need to, rely on water quality monitoring information, and considered whether Phase I and Phase II requirements should be handled differently and whether or how Phase I and II efforts can be coordinated or combined.

What types of program evaluation/monitoring should Ecology require in the Phase II NPDES stormwater permit to document permit compliance? *(Note: these are not mutually exclusive alternatives)*

<i>Alternative 1</i>	Require permittees to evaluate the effectiveness of their overall programs using the performance measures listed in their permit and the notice of intent.
<i>Alternative 2</i>	Require MS4 operators to evaluate the effectiveness of the specific BMPs they employ as part of an evaluation of the effectiveness of their programs.
<i>Alternative 3</i>	Require MS4 operators to do baseline environmental monitoring. This monitoring should focus on establishing priority areas (using a risk-based model).
<i>Alternative 4</i>	Establish a fund into which municipalities can contribute to have an independent entity, or perhaps Ecology, conduct baseline environmental and/or BMP effectiveness monitoring.
<i>Alternative 5</i>	Leave water quality monitoring of the waters of the state to the state.
<i>Alternative 6</i>	Require MS4 operators to conduct a wide spectrum of monitoring: action-oriented,

²¹ [need citation]

	environmental and chemical/biological.
Alternative 7	Require measurement of impervious surface and vegetated cover. Conduct a baseline survey, project build-out scenarios, and monitor on a yearly basis.

Considerations

Administrative

- Requiring MS4s to conduct extensive evaluations will cause those municipalities to divert more resources into program evaluation, leaving fewer resources for program implementation.
- It is not the responsibility of local stormwater management programs to assess or evaluate the effectiveness of individual BMPs. That is primarily an EPA and Ecology responsibility that should not be thrust upon municipalities.
- Municipal stormwater management programs generally lack the resources to conduct effectiveness evaluations or to establish baseline or environmental trends datasets. Most often, such activities are conducted by the state or private entities (such as permitted industrial facilities).
- Many jurisdictions already conduct biological and other monitoring, so this is a normal program feature.
- Pooling resources to fund independent baseline or BMP research could be cost-effective and provide for data collection while acknowledging the complexity (and perhaps the infeasibility) of monitoring specific effects on stormwater.
- It requires extensive time to establish trends, well beyond permit timelines.
- With a statewide evaluation, Centennial funds could be targeted to monitoring of stormwater discharge, both the actual constituents in stormwater runoff and the long-term affects of stormwater discharge on the receiving surface water body. Monitoring would be structured to evaluate a particular stormwater treatment system and the range in the hydrology of the receiving waters responses to taking of stormwater discharge to better improve performance measures and management practices across the state.

Legal

- Alternative 1 does not meet the federal requirement of evaluating the appropriateness of identified BMPs.
- Neither the Phase I nor the Phase II regulations require effectiveness monitoring (at either the BMP or programmatic level). Instead, the regulations require MS4s to report on their compliance with (and progress toward) program requirements.
- Effectiveness monitoring may only be appropriate in cases where stormwater is being discharged to water bodies which do not meet water quality standards.
- If the local entity has implemented a stormwater management program based on the Western Washington Stormwater Manual, the effectiveness of the program is the responsibility of the Ecology Stormwater Group in developing the stormwater manual.
- There is uncertainty about the legal context for monitoring. The Phase II regulations are unsettled as to whether and how a regulatory should or can judge the adequacy of any regulated municipal stormwater management program. A recent court case requires the permitting agency to evaluate local programs. EPA may appeal this case or it may address the issue through a regulatory revision.
- EPA recommends that no additional requirements beyond the minimum control measures be imposed on Phase II permittees until after December 10, 2012. Since environmental monitoring

is not one of the six minimum measures, EPA's recommendation is an argument in favor of not requiring Phase II permittees to conduct environmental monitoring.

Cost and Equity

- Other programs and agencies may already conduct baseline environmental monitoring. Asking MS4 operators to do so may force duplication or the diversion of resources from other program activities. This would be an unfunded mandate.
- Mandatory program compliance evaluation/monitoring provides less aggressive municipalities a stronger impetus to fully implement program requirements.
- Monitoring to determine cause-effect relationships that would be required to implement a water quality standards-based MEP is not technically feasible, irrespective of the amount of money spent. Municipalities might be required to sample hundreds of outfalls for multiple parameters, yet still would still not be able to make those cause-effect determinations.
- It would be advisable to require a feedback loop in the permit to be able to identify and respond to program elements that are not working effectively.
- Due to the variability of stormwater, associating water quality outcomes with specific administrative/programmatic actions or a Best Management Practice may be expensive and time-consuming, or impossible.
- It may be useful to have an independent party evaluate a representative sample of BMPs in Western Washington.
- Municipalities may be able to benefit from leveraging their resources by contributing toward a pooled fund to conduct a coordinated evaluation/monitoring program but generally lack the resources to effectively conduct such evaluations on their own. Coordination in this area would avoid costly duplication of efforts, standardize the data collection and evaluation protocols, and reduce the individual burden to assimilate the information necessary to make valuable and better informed decisions.
- Municipalities may be more willing to implement a voluntary monitoring program (either related to BMP effectiveness or environmental quality).
- The monitoring choice is not necessarily between super expensive and possibly inconclusive ambient water quality monitoring and vague program evaluation. While extensive water quality monitoring is not always possible, it is reasonable to require a focused effort (key location, key times, end of the pipe, sediments or biota by outfalls, etc.)
- MS4s cannot measure program effectiveness without looking at the effectiveness of individual program measures.

Environmental Benefit and Impact

- Evaluation results that are linked to environmental results provide the most meaningful assessment of environmental impact and program effectiveness. Given that one aim of stormwater management programs is to control the movement of pollutants into water bodies, effectiveness monitoring may be relevant. BMP effectiveness monitoring provides the most direct link from action to environmental outcome.
- Baseline environmental monitoring can help municipalities understand and prioritize their stormwater problems and select the most appropriate BMPs.
- Water quality monitoring in the last decade suggests that water quality is improving. However, it is not clear if this improvement is attributable to BMPs that have been implemented or simply natural phenomenon such as changing meteorological or hydrological conditions.

- Federal rules state that permits must protect water quality. If Water quality monitoring can help us understand if we are protecting water quality or further degrading impaired waters.
- The positive effects of stormwater management practices may not be detectable in the environment for a decade or more.
- Monitoring may guide future environmental priorities.

D. Additional Program Elements

Background

The federal requirements identify minimum measures for inclusion in an NPDES Phase II stormwater management program (the “six plus two”). The stormwater management program required in the existing Phase I permit contains sixteen elements. The WSG considered whether the Phase II permit should include other measures in addition to the requirements in the federal Phase II rules, and whether these additional requirements should also be added to future Phase I permits.

Discussion

A focus of the discussion was the Puget Sound Water Quality Management Plan, prepared by the Puget Sound Action Team.²² (PSAT) The PSAT articulated a comprehensive approach to stormwater management in this plan, subsequently endorsed by the Legislature and EPA. This comprehensive approach advises the adoption of the Ecology technical manual as well as securing stable funding. A comprehensive program would go beyond the federal requirements to include a system of identification and ranking, low-impact development practices, watershed or basin planning, programmatic and targeted environmental monitoring, and state funding. A basic point of departure within the WSG was whether the six-plus-two suffices²³, or whether the uniqueness and sensitivity of the Puget Sound requires a greater effort. Washington State is the nation’s leading producer of bivalve shellfish (oysters, clams and mussels). The Puget Sound is also subject to numerous listings of threatened and endangered salmonids under the Endangered Species Act.

Should Ecology add permit requirements to the Phase II municipal NPDES stormwater permits beyond those required by EPA under the federal Phase II Final Rule?

<i>Alternative 1</i>	The permit should be based solely on the required federal program elements.
<i>Alternative 2</i>	The permit should include other useful measures, in addition to the required program elements in the applicable rule or permit, including basin planning, identification and ranking of all problems, low impact development, and programmatic and environmental monitoring.

Considerations

Administrative

- Focusing on additional measures encourages innovation.
- By requiring additional measures, Ecology would be creating a more complex permit (or set of permits) to manage, thereby raising program costs.

²² The Puget Sound Action Team includes a chair appointed by the Governor, directors from ten state agencies and representatives from tribal, federal, and local governments.

²³ There is also an argument that the Plan can fit within the six-plus-two.

- Not all advances in stormwater management need to be driven by a permit. Some local governments have already implemented many innovative stormwater measures in Washington, without the constrictions or prescriptions of a permit.
- When local governments have flexibility to make their own decisions about additional measures, they may make better choices than those imposed by the state.
- In terms of exploring innovative approaches, we will get much further with incentives than we will from mandatory requirements.
- Mandatory requirements are great drivers of progress.
- The minimum elements of the Phase II regulations are already very broadly stated. Depending upon how much flexibility a permittee is allowed to design its own program, items that might be considered additional measures could be included in an individual permittee's program.

Legal

- Participation in a group monitoring program is encouraged by the federal regulations.
- The state Growth Management Act and Critical Area Ordinances are far better suited to deal with overall planning issues than is an NPDES municipal stormwater permit. The Puget Sound Water Quality Protection Act, state Water Pollution Control Act, and federal Endangered Species Act all contemplate a stormwater permit program that is more robust than the minimal measures outlined by EPA.
- Additional measures are not required under federal law and are vulnerable to legal challenges.
- Similar issues arise in Phase I permits, where measures beyond the accepted, basic components of a stormwater program have been proposed in the past by Ecology. Expansions of permit scope may be vulnerable to legal challenge.
- A useful approach may be to tie violation of water quality standards to a triggering of additional measures.

Cost and Equity

- Some low impact development measures make sense, but local governments may struggle to fund even the basic program elements.
- Alternative approaches could actually reduce the cost to local governments to operate their program; for example WSDOT is heavily investigating low-impact development infiltration and dispersion techniques that it can utilize within its right-of-ways as a means of reducing capital as well as operational and maintenance costs associated with stormwater management.
- Some comparative cost data that suggest that low-impact development is less expensive to construct than conventional development.
- The cost data on low-impact development is sparse and speculative and may not be reliable for making decisions.
- It is often less expensive to focus on preventive measures, such as low-impact development, than it is to continue developing in a conventional manner. Restoration is many times more expensive.
- A number of jurisdictions in the Puget Sound are using low-impact development practices as a cost-effective stormwater management tool.
- Imposing additional requirements on communities with more advanced programs can seem punitive. Forward-thinking jurisdictions should not be penalized for having undertaken significant voluntary actions.
- Failure to manage stormwater adequately has historically led to costly remediation actions.
- Stable funding can help support a healthy environment.

Environmental Benefit and Impact

- The required measures do not fully address the existing problems caused by stormwater.
- Additional measures can target sensitive areas such as shellfish beds and salmon habitat better than the basic measures.
- Low-impact development ordinances can minimize and disconnect impervious surfaces and minimize disturbance of soils and vegetation.
- If the permit only applies to activities related to new development and redevelopment, environmental degradation due to existing stormwater runoff problems will continue.
- Failure to implement the measures identified by the Puget Sound Action Team could have a negative impact on the water quality of Puget Sound.
- Failure to implement land use controls may lead to water quality gradation and imposition of measures under the Endangered Species Act.

E. Structuring the Permit

Background

One of the basic issues confronting Ecology in constructing new stormwater permits is how to deal with the wide range of experience and capacity among the qualifying municipal permittees. Phase I jurisdictions have been operating under a permit since 1995.²⁴ Some of them have programs that long-preceded this permit, so they have accumulated substantial experience in stormwater management from which Phase II jurisdictions and others can benefit.

In a kindred fashion, there are a number of Phase II jurisdictions that have never been regulated under a state-issued stormwater permit, yet have operated advanced stormwater management programs for years. Similarly, some Phase I special purpose districts have never been formally regulated under a state-issued municipal stormwater permit but have worked with tenants to implement stormwater management programs.

Most of the communities to be permitted as Phase II jurisdictions, however, do not currently have programs that have all the components required by the federal regulations (the “six-plus-two”). The Association of Washington Cities and Washington State Association of Counties conducted a study in 2001-02, to gain a better understanding of the range of programs currently operating in the state.²⁵ Half of the candidate Phase II cities responding to the survey indicated that they had programs that included at least the six components identified in the Phase II rules. The others varied significantly in how many program elements they addressed. None of the counties responding to the WSAC survey answered yes to all questions pertaining to the basic Phase II requirements (although a few appear to have activities in six of the components).

In terms of current capacity, then, the municipalities fall into three groups: Phase I communities and Phase II communities that (1) meet all requirements, (2) meet some requirements, or (3) meet few or no requirements.

²⁴ According to requirements set forth in the Clean Water Act, Ecology was supposed to re-issue the permit in 2000 (five-year cycle). This did not happen.

²⁵ “Needs Assessment for NPDES Phase II Permit Process” [need citation]

Discussion

The WSG explored different approaches for dealing with these differences in capacity and experience. Some members proposed a “tiered” permit with different levels of required activity among the permittees. Others favored writing the permit without “tiers” and in a manner that defines, for each stormwater management program element, a single level or measures of compliance applicable to both Phase I and II permittees. Under a tiered permit structure, Ecology could articulate different minimum actions within each tier to accommodate the different sizes among communities and variation among the existing programs (as well as whether they were a Phase I or Phase II jurisdiction). The tiers might also reflect differences in resource protection or restoration needs, depending on the extent of development or impervious surface within that community, or its proximity to sensitive resources, such as shellfish beds.

A variation of the tiered permit idea is that in future permit cycles, the tiers would be adjusted to move communities from lower tiers to more advanced tiers, to reflect the increased experience level. Over time, this would create a continual improvement in all programs, and would also account for jurisdictional variation in the concept of Maximum Extent Practicable.

Under the ‘no tiers’ alternative, each stormwater management program element requirement would be written so that minimum performance for compliance is defined in terms of measurable operational or field conditions, uniformly applicable to all permittees. Each permittee can adjust the specific actions or BMPs used to ensure that these conditions are met. Compliance schedules would be allowable under this alternative, provided they are approved by Ecology and provide reasonable assurances that the permittee will meet the compliance goal by the end of the permit term (five years) or another deadline set by Ecology.

Another element to consider when structuring the permit is whether or not there is an end point to the permit. One perspective is that, over time (several cycles), all permittees are working toward a common, or static, end point (e.g., full compliance with water quality standards). Another perspective is that the Maximum Extent Practicable may vary due to the inherent variation in communities’ programmatic capacity -- some communities are already performing at a greater level than “six-plus-two”— and as a way to prevent backsliding and encourage adaptive improvements.

An additional complexity in terms of the structure of the permit is that Ecology may choose to outline or prescribe the minimum or basic actions in the permit and require all communities to meet them, or it may offer communities the option of proposing their own programs to reflect differences in existing programs and community needs and interests.

How should municipal stormwater permits be structured? *(Note: these are not mutually exclusive alternatives)*

<i>Alternative 1</i>	The permit establishes one compliance schedule that assumes all jurisdictions will be fully compliant with all permit requirements by the end of the first permit term.
<i>Alternative 2</i>	The permit should define a single level or measure of compliance for each stormwater management program element, applicable to all permittees. Compliance schedules would be allowed (if approved by Ecology) but would not extend past the term of the permit.
<i>Alternative 3</i>	The permit should be structured in tiers to reflect differences in the size of communities, resources, the status of their existing programs, and variability in resource protection and restoration needs.
<i>Alternative 4</i>	The permit should prescribe the basic requirements for all programs to meet (within the structure of Alternatives 1, 2, or 3).

Alternative 5 | Jurisdictions should have the option of proposing alternative programmatic approaches to meeting permit requirements, with the benefit of Ecology review/approval.

Considerations

Administrative

- Use of a tiering system could cause confusion and misunderstanding about what is needed for compliance. Further debate may be expected to determine which tier specific jurisdictions fall within (alternatively, Ecology would have to establish criteria/qualifications for each tier).
- Ecology would require significant resources to adequately review individual jurisdiction's programs and/or consider their compliance schedule proposals. Municipalities may be willing to pay for a focused Ecology review of their proposed tailored stormwater management program.
- Defining a single level or measure of compliance for each stormwater program element will require considerable time and effort on Ecology's (and others) part.
- It would be useful to figure out incentives for jurisdictions to move to a more advanced tier; otherwise the tiering system doesn't make sense.
- It is undesirable to establish a permit system that would allow private negotiations between Ecology and an applicant. All applicants need to meet a common set of standards that have been subject to public review.

Legal

- The 'no tiering' alternative may be easier for Ecology to defend, as it would contain measures of compliance that are tied to operational or field conditions and are applied uniformly to all permittees.
- The legal limit on the length of time allowed as a compliance schedule is uncertain in light of recent Pollution Control Hearing Board decisions related to the Industrial Stormwater NPDES permit and other possible federal requirements.
- A tiered structure could be vulnerable to legal challenges, especially related to establishing and applying criteria against which individual jurisdictions would be judged.
- It is unclear to what extent Ecology review of individual stormwater management programs may be required in the wake of the 9th Circuit Court decision summarized above.

Cost and Equity

- MS4 operators who have acted proactively and who operate more advanced programs are concerned that they not be penalized for having gone beyond the basic requirements. Likewise, they do not want to remove incentives for other municipalities who will be entering the program to act proactively. The 'tiering' approach is most likely to set up such a permit equity dilemma.
- Municipal stormwater managers who prefer a permit that gives flexibility to establish unique stormwater program options tailored to local needs (and who are willing to contribute to Ecology's increased costs to accomplish this goal) would not be penalized if the state sets a goal of uniformity across jurisdictions.
- Municipalities that cannot afford to pay for an Ecology review of their tailored program should not be penalized for lacking the necessary resources.
- Smaller communities will always have a higher per household cost than larger communities when uniform minimum actions are required.

- The ‘no tiering’ alternative can be designed to require a level of effort for each permittee that is commensurate with the size and extent of its storm sewer. Smaller permittees would have less costly program than larger permittees.
- Local businesses ultimately bear the cost for a community’s stormwater program. The more restrictive the requirements, the more expensive and difficult it is for those local businesses.
- Disparities among different municipalities’ programs may cause businesses to locate in those jurisdictions with less restrictive (and therefore, less costly) requirements.

Environmental Benefit and Impact

- The permit must be structured so that the maturity of a program does not equate to stagnation and delay environmental improvement.
- Many jurisdictions have created stormwater management programs that voluntarily go beyond the federal Phase II guidelines. It is likely that these jurisdictions will continue to strive to maintain water quality with or without a permit.

V. Issues of Municipal NPDES Stormwater Permit Integration and Coordination

A. Integration of Phase I and II Permits

Background

The Clean Water Act established a two-part system for implementing municipal stormwater permits. Larger and medium-sized municipalities were covered in Phase I; smaller jurisdictions were addressed later under Phase II. The Phase I determination took place only twice; no other jurisdictions can now become Phase I permittees (regardless of their size). New municipalities can become Phase II jurisdictions, however, once they trigger the specific population density requirements laid out in the regulations.

The Phase I regulations set explicit application requirements for qualifying municipalities but also allow applicants to “submit a jurisdiction-wide or system-wide permit application” and to co-apply when more than one public entity owns or operates a municipal separate storm sewer within a geographic area.²⁶ Similarly, the Phase II regulations allow a variety of permit coverage options, including by general permit, by (voluntary) joint Phase I/Phase II Notice of Intent to be covered by a general permit, by individual permit, by joint application as Phase II co-permittees if allowed, or as a limited co-permittee via a permit modification if a Phase I municipality is “willing to have you participate in its storm water program.”²⁷

Discussion

WSG members discussed the challenges municipalities face when required through an NPDES permit to coordinate with neighboring jurisdictions, even as some acknowledged the value of inter-jurisdictional coordination. Challenges include reconciling different local building codes and/or governmental priorities/resources. Benefits of inter-jurisdictional coordination can include leveraging resources and sharing knowledge, responsibilities, and opportunities to implement permit requirements, and to integrate stormwater program activities with related efforts, such as TMDL implementation. Members observed that Western Washington jurisdictions demonstrate varying degrees of readiness and interest to implement a strong stormwater management permit. Permit options that attempt to mandate inter-jurisdictional coordination/integration can cause friction either by causing municipalities with mature programs to feel “dragged down” by their neighbors or by making less mature program “look bad” when compared to their neighbors’ more developed programs. Elected government officials who find themselves in either situation may be reluctant to maximize integration opportunities.

Some members observed that coordination might be mandated or encouraged in a variety of ways, either through or outside the permit itself. Similarly, watershed-based or site-specific provisions (e.g., coordination on illicit discharge identification) might be incorporated into a general NPDES permit. Voluntary interlocal agreements can also effect integration without tying an action to a specific, enforceable permit. Ultimately, members acknowledged the importance of permit content (somewhat independent of the degree of integration required by the permit).

²⁶ 40 CFR 122.26(d)

²⁷ 40 CFR 122.33(b)

Should Ecology integrate Phase I and Phase II municipal NPDES stormwater permits and if so, how?

<i>Alternative 1</i>	Issue separate Phase I and Phase II MS4 permits for Western Washington.
<i>Alternative 2</i>	Issue a combined Phase I/Phase II MS4 permit for Western Washington. Under this option, Ecology would prepare a single permit that lays out separate requirements for Phase I and Phase II jurisdictions.
<i>Alternative 3</i>	Issue an integrated Phase I/Phase II MS4 permit for Western Washington. Under this option, Ecology issues a single permit that fully integrates (and makes consistent) specific permit requirements for Phase I and Phase II communities.
<i>Alternative 4</i>	Issue MS4 permits in Western Washington on a watershed basis. Under this option, Ecology could build on any of the watershed-based constructs to organize geographically distinct MS4 permits. A sub-alternative is to offer watershed-based permits as an alternative construct for interested Western Washington jurisdictions.
<i>Alternative 5</i>	Issue a Puget Sound-wide permit. Handle other Western Washington permits in another fashion.

Considerations

Administrative

- Cities and counties often have different water quality (and development) objectives and standards. Political pressures may overwhelm jurisdictions' ability to coordinate development and maintenance standards. Standardizing to the "lowest common denominator" will not serve environmental objectives.
- Coordinating/integrating activities across jurisdictions can be time-consuming and resource-intensive.
- Coordination may offer administrative efficiencies, e.g., related to public notice and meeting requirements that ultimately save taxpayer dollars.
- Ecology will likely need to expend significant resources to reconcile different regulatory requirements contemplated by integrated or highly coordinated permit options.
- Local government officials may resist being required to coordinate activities with neighboring jurisdictions.
- Depending on how geographic areas are delineated, jurisdictions may find themselves applying for several permits in the watershed-based approach. If these permits are on different cycles or contain different requirements, this approach may pose additional workload concerns for some jurisdictions.
- The manner in which jurisdictions are organized to be covered under the permit are ultimately of lesser interest than what is contained within the permit and whether Ecology intends to require permittees to be jointly responsible to fulfill permit conditions. Ecology should make its intentions clear in any proposal.

Legal

- Phase II regulations explicitly allow for regulated entities to jointly apply for permit coverage.
- No authority has been cited that would allow Ecology to impose joint obligations upon permittees to a multi-party or general permit.
- No explicit authority in the regulations has been cited for Ecology to require a single permit that covers both Phase I and II jurisdictions.

- Jurisdictions have no authority to police other jurisdictions and should not be held accountable through third party lawsuits or other mechanisms for the actions or inactions of other permitted entities. This is possibly of special concern as it relates to Alternative 3.
- Making Phase I and II permits as similar as possible can help mitigate impacts associated with growth without placing an undue burden on Phase II permit applicants.

Cost/Equity

- Administering separate permits may pose additional costs for Ecology but not for the permit applicants.
- Compliance with Phase I or Phase II permit requirements may create less favorable business climates in those jurisdictions compared to nearby jurisdictions that are not municipal NPDES permittees.
- Adding Phase I requirements to Phase II communities may add substantial unfunded costs to these communities. This is of particular concern to counties that do not have Phase I entities within them or for Phase II cities that are not contained in Phase I counties.
- Combined or integrated permit requirements may enhance the predictability of the local regulatory climate for businesses.
- Even under an integrated permit, jurisdictions will establish their own building/development codes. Therefore, developers will still be subject to different codes in different jurisdictions. Consistency may not improve.
- Model programs (such as the option to test watershed-level permitting in Puget Sound—Alternative 5) allow the state to explore advantages and limitations of a watershed-level permit without investing in a state or regional strategy.

Environmental Benefit and Impact

- Coordinated/integrated permits are more likely to compel jurisdictions in a given watershed to coordinate efforts to address stormwater contamination from municipal sources. Watershed-level solutions are encouraged throughout water quality programs in Washington.
- Development of a Puget Sound-wide permit allows Ecology and permittees to tailor permit requirements to address specific Puget Sound considerations (e.g., threatened salmonid habitat needs).
- Developing permits at the watershed level allows participants to tailor the permit to meet the specific needs and concerns of the watershed.
- Because drainage systems are interconnected, it is likely that their management would benefit from some level of coordinated management/protection.
- TMDLs will ultimately require watershed-level coordination in Washington State. Options that promote watershed-level coordination help establish a stormwater management system or approach that is consistent with TMDL requirements.

B. Relation of Municipal Stormwater Permits to Other Stormwater Permits

Discussion

The WSG also discussed how and under what circumstances the MS4 permit(s) should be related to other stormwater permits, including industrial, construction, and the Washington State Department of Transportation (WSDOT) statewide stormwater permits. Members acknowledged that each of these permits represents a unique situation, and offered the following comments related to each one.

Construction permit: EPA’s Phase I storm water program requires operators of construction sites that disturb five or more acres to obtain an NPDES construction storm water permit. MS4 operators regulated under a Phase II permit are required to develop, implement, and enforce a program to control stormwater runoff to the MS4 from construction sites greater than or equal to one acre.²⁸ Under the Phase II regulations, operators of construction sites that disturb one to five acres in size, including smaller sites that are part of a larger common plan of development or sale, are also to obtain a permit directly from authorized state agencies (e.g., Ecology) or EPA. The final Phase II rule also allowed regulated construction site operators located within a “qualifying State, Tribal, or local program’s” jurisdiction to meet the general NPDES permit requirements through compliance with a qualifying local program. They are still required to submit a Notice of Intent to be covered under the general permit.

WSG members noted that NPDES municipal permits (Phases I and II) will require each permittee to adopt the equivalent of the Stormwater Management Manual for Western Washington into its land development codes, and will apply these regulations to at least the same set of construction sites that will be required to obtain an NPDES construction permit. Some members suggested that sites located in a permitted jurisdiction with a “qualifying” local program might only be required to obtain one permit.

Industrial Permits: Unlike construction sites, local governments do not typically regulate existing industrial sites. In general, MS4 permitted stormwater programs only address industrial facilities through illicit discharge identification activities. Furthermore, because there is no parallel permitting process at the local level for already-constructed properties, local governments have little authority to regulate industrial facilities otherwise subject to NPDES requirements. The WSG concluded there was no need to strengthen the connection between MS4 and industrial stormwater permits.

WSDOT: Some WSG members acknowledged the special challenge (and opportunities) WSDOT faces in implementing a (yet-to-be-issued) statewide permit covering all highways and facilities that the agency operates or manages. WSG members also noted the value in coordinating the WSDOT permit with the MS4 permit, but also recognized that requiring WSDOT projects to comply with a second set of permit requirements may set up redundancies (or, in some cases, additional work) for WSDOT.

Should Phase II construction stormwater permittees have the option of complying with a “qualifying” local program instead of obtaining an NPDES stormwater permit?

<i>Alternative 1</i>	Maintain status quo; require construction site operators to seek separate local and state permits.
<i>Alternative 2</i>	Determine whether smaller disturbed sites (one-to-five acres) located in Phase I/II jurisdictions can use the “qualified local program” alternative to NPDES permit coverage. Smaller disturbed construction sites may not need to apply directly to Ecology for permit coverage if they are located in a jurisdiction with a “qualified program.”

Considerations

Administrative

- Currently, the state and local governments both have the responsibility to monitor construction sites, including smaller sites. This may set up some unnecessary programmatic redundancies, both in permitting and in inspection/compliance responsibilities. Identifying ways to streamline permitting practices and/or inspection activities benefits many parties, including the construction

²⁸ 40 CFR 122.34(b)(4)

site operator. Ecology has not yet determined what constitutes a “qualifying program” in the context of this issue. For alternative 2 to work, Ecology will need to provide such clarification.

- This issue may be better addressed in the construction stormwater permit arena.

Legal

- State and local agencies do not share liability for failure to enforce requirements under the current two-permit system. It is unclear who would be held legally responsible for stormwater runoff problems found at construction sites covered under “qualifying” MS4 programs.
- The state, not local government, is responsible for issuing and enforcing NPDES permits. Municipal permittees should not be required to regulate, or to enforce Ecology regulation of, discharges already covered by stormwater permits for industrial or construction activities.
- It is unclear whether local jurisdictions would be required either to monitor construction site discharges directly or review operators’ monitoring reports to validate contractor compliance with runoff requirements under Alternative 2.
- Phase II MS4s must establish construction site runoff controls as part of compliance with six-plus-two minimum requirements.

Cost and Equity

- It is inefficient and oftentimes impractical for state agency staff to visit ongoing construction sites to assess operators’ compliance with applicable runoff control requirements. In practice, therefore, local entities handle most, if not all, inspection responsibilities. At this time, however, the state does not compensate the local agency staff for undertaking these inspections.
- State may be able to restrict construction site activities more heavily than local governments can (due to political or regulatory constraints).
- Municipalities are generally unwilling to take on the state’s obligations.
- Monies collected by Ecology as stormwater construction permit application fees may be lost if the State adopts Alternative 2. (This may not be the case if the permit becomes a state permit.)
- Under Alternative 2, development may gravitate to municipalities with qualifying programs (as businesses seek to minimize administrative efforts and fees associated with permit applications).

Environmental Benefit and Impact

- Local inspectors are more likely to be able to visit site and identify runoff problems during or soon after storm events. Identifying and correcting such problems is key to protecting water quality.

VI. Issues Specific to the State or Region

A. Protection for Shellfish Areas

Background

Washington State dominates commercial bivalve shellfish production (oysters, clams, and mussels) in the Western United States and represents a \$73.5M industry for the state. Commercial shellfish producers are significant employers in several of Washington’s rural counties. Recreational shellfish harvesting is also an important facet of Washington state living. As well, many shellfish actively help maintain water quality by filtering impurities out of the water column.

Healthy shellfish production demands clean water and, in fact, several shellfish species (e.g., the native Olympic oyster) are highly sensitive to water quality pollution. The decline of water quality and associated shellfish bed contamination/closures in Washington State has been linked to the effects of urbanization, including nutrient (fecal coliform) loadings from failed septic systems and pet waste, fertilizer, pesticide, and other chemical constituents transported via stormwater runoff. The specific contribution of stormwater runoff to shellfish bed degradation is unknown.

Discussion

The WSG looked at shellfish bed health and contamination as a case study for examining the impacts of stormwater pollution on beneficial uses of waterbodies in Western Washington. The WSG considered ways in which the municipal stormwater permit could help protect these (and other) important natural resources (e.g., by implementing strong illicit discharge programs). The WSG observed that several important shellfish-growing communities are not included in Phase I or II designations. The WSG also noted that MS4s are likely not the most important contributors of waterborne pollution to shellfish beds and that, instead, local health districts and the State Department of Health (DOH) play a major role in regulating most human sources of fecal coliform bacteria that enter waterbodies. Furthermore, several members asserted, there is currently no demonstrated stormwater water quality treatment device to effectively remove fecal coliform bacteria (e.g., released by failed septic systems).

How can shellfish bed protection and other marine/aquatic natural resources be protected through a municipal stormwater permit?

<i>Alternative 1</i>	Require Phase II permit coverage in MS4-served areas draining to sensitive waterbodies (i.e., shellfish growing areas) under Phase II permits.
<i>Alternative 2</i>	MS4s discharging to shellfish beds and other sensitive waterbodies should take additional steps to reduce the impact of stormwater discharges to those areas.

Considerations

Administrative

- The DOH’s “threatened growing areas” list can help identify sensitive waterbodies that may warrant protection/attention under a municipal stormwater permit.
- The DOH also has an important role in protecting shellfish beds from contamination (e.g., through their regulation of septic tanks). Ecology may be able to partner with DOH to educate citizens and take other steps to limit their impact on shellfish-growing areas.

Legal

- Propagation of fish and wildlife and recreation are two designated uses identified for protection under the Clean Water Act.
- Ecology does not regulate major sources of shellfish bed contamination; the Department of Health and local health districts do.

Cost and Equity

- MS4s are only the conduits for failing septic or sewer lines to reach receiving waters. Adding fecal coliform limits to the NPDES municipal stormwater permit would be to hold MS4s accountable for a water quality concern governed by the actions of health districts/departments.

Environmental Benefit and Impact

- Shellfish growing beds are important natural resources in Washington State.

VII. Issues Related to Funding

A. Potential Funding Sources for Implementation of Permit Requirements

Background

State law (RCW 90.48.465) requires Ecology to establish annual fees to fully recover Department expenses related to implementing the waste discharge permit program. The fees shall be based on factors relating to the complexity of permit issuance and compliance and may be based on other factors as well (e.g., pollutant loading, toxicity). The initial fee schedule shall be established by rule and adjusted no more than once every two years.

State law does not require local jurisdictions to fund their stormwater management programs in any particular manner but does allow municipalities to fix rates and charge customers for services and/or benefits provided from any storm water control facility. Options for starting and continuing to operate a stormwater management program include grants, loans, bonds, and fees collected through a stormwater utility.

Discussion

The WSG's discussion of this topic focused on two types of funding needs: the permitholder's (to implement a local stormwater management program) and Ecology's (to administer the NPDES program). The WSG first considered two basic models for funding local stormwater programs via a stormwater utility: in one model, the utility applies a single rate across the entire jurisdiction (and then expends the monies where they are needed); in the other, utility rates can be set by basin and all monies collected from ratepayers go to provide services in the ratepayer's basin. The WSG acknowledged that how and where stormwater utility monies are spent is a local decision (determined by how the utility is established). As a result, some jurisdictions' stormwater utility fees can fund a variety of activities, including watershed planning that encompasses areas beyond the municipal boundaries. For others, the monies can only be spent in limited ways or areas. The WSG noted that Washington state law now allows for the establishment of a comprehensive local stormwater utility. Members also discussed opportunities for cost-sharing (e.g., to support basin planning) but cautioned that cost-sharing arrangements need to clearly lay out how monies will be spent.

WSG members noted the range of local, state and federal grant and loan programs available to help municipalities establish or maintain stormwater management programs but also recognized that these grants and loans are limited, competitive, and may not meet all anticipated program needs. The WSG highlighted that the startup funding needs of smaller Phase II communities are especially acute. Members expressed specific hope that 319 funds would be made available to states to use for stormwater program support activities, especially since Ecology has opted to link state Centennial Fund priorities to 319 grant priorities (primarily for administrative ease, and because Centennial Fund dollars can be used for the required State match on 319 grant awards).

Next, the WSG discussed funding options for the Ecology Stormwater program, including the merits of combining or keeping separate Ecology's Phase I and II fee structures. Members generally expressed concerns that the municipal stormwater permit fee structure will need to be set before a final draft permit is written but recognized that Ecology has no control over the rulemaking schedule. The WSG debated three Phase II fee structure options put forth by Ecology: (1) establish the fee structure based on flow (the default option) (2) assess a flat fee across all Phase II jurisdictions; or (3) base a jurisdiction's fee on the

number of housing units (possibly adjusted for economically disadvantaged communities). Members also considered whether Ecology would want to raise the Phase I permit fee cap.

Several municipal representatives commented that they would be willing to pay a higher permit fee in return for high-quality Ecology program support (on permit review/issuance and compliance assistance) and encouraged Ecology to estimate a reasonable program revenue target. Others expressed a willingness to pay a higher individual fee to Ecology to receive individualized permit review support.

How should Ecology structure its stormwater fee(s)? *(Note: these are not mutually exclusive alternatives)*

<i>Alternative 1</i>	Ecology should base Phase II stormwater permit fees on flow.
<i>Alternative 2</i>	Ecology should assess all Phase II jurisdictions a flat fee.
<i>Alternative 3</i>	Ecology should establish a new fee category (or fee categories) for Phase II municipal stormwater permits
<i>Alternative 4</i>	The Phase II permit fee should vary based on the size of a jurisdiction (e.g., as indicated by the number of housing units).
<i>Alternative 5</i>	The Phase II fee structure should be set independent of the Phase I fee structure.

Considerations

Administrative

- Local governments prefer grants to loans. Because Ecology must be named first lien status on any loan it makes to a local government, a municipality will have to pay a higher interest on any bonds it sells to pay off a loan.
- Ecology will need significant resources to effectively administer (from issuing permits to assuring compliance) the Phase I/II stormwater management program.
- The more tailored services Ecology is asked to provide, the higher permit fees it will need to collect to cover administrative costs.
- Establishing a flat fee will be easiest for Ecology to administer.

Legal

- By state law, the fee schedule can only be adjusted every two years.
- Ecology has the authority to adjust permit fees.

Cost and Equity

- Smaller communities (especially) need grants and loans to establish stormwater management programs.
- Enabling jurisdictions to pay for higher levels of service may impact smaller local programs disproportionately.
- Permits based on a flat-fee structure require smaller municipalities to collect a higher fee per-residential equivalent. However, residents in those communities should not expect higher levels of service.
- According to a national study, Puget Sound communities have among the highest stormwater utility rates in the country. Depending on the permit fee, some communities may need to raise their fees higher.

- Adjusting permit fees for economically disadvantaged communities acknowledges that those communities have more limited abilities to pay for the permit.
- Phase I and II per residential equivalent fee caps should be set in proportion to the level of service provided by Ecology.

Environmental Benefit and Impact

- Well-funded programs (at the state and local level) are able to leverage greater resources to protect water quality.